Appl. No. 10/770,258

Examiner: CHEN, WEN YING PATTY, Art Unit 2871 In response to the Office Action dated August 9, 2005

Date: November 2, 2005 Attorney Docket No. 10113711

REMARKS

Responsive to the Office Action mailed on August 9, 2005 in the above-referenced application, Applicant respectfully requests amendment of the above-identified application in the manner identified above and that the patent be granted in view of the arguments presented. No new matter has been added by this amendment.

Present Status of Application

Claims 1-3, 7-10 and 14-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Weindorf et al (US 2002/0130985). Claims 4 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weindorf et al in view of Mizuno (US 6,398,560). Claims 5-6 and 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weindorf et al in view of Kakuguchi et al (US 2004/0254001).

In this paper, claims 1, 7 and 14 are amended to more clearly recite a novel and non-obvious feature of the present invention, as described in further detail below. Support for the amendments can be found on page 4, lines 14-23 and Figs. 6 and 9 of the application. Claim 15 is amended to correct a typographical error. New claims 18-20 are added. Support for the new claims can be found on page 4, line 14 to page 5, line 3 and Figs. 5-6 and 8-9 of the application. Thus, on entry of this amendment, claims 1-20 are pending.

Reconsideration of this application is respectfully requested in light of the amendments and the remarks contained below.

Rejections Under 35 U.S.C. 102(b)

Claims 1-3, 7-10 and 14-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Weindorf et al. To the extent that the grounds of the rejections may be applied to the claims now pending in this application, they are respectfully traversed.

To anticipate a claim, a reference must teach every element of the claim. In this regard, the Federal Circuit has held:

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"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

"The identical invention must be shown in as complete detail as is contained in the ... claim." Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

As amended, independent claims 1, 7 and 14 each recite that the lead wires are enclosed by a substrate of the circuit board. As recited in the claims, openings are provided on the substrate, exposing the lead wires. In one embodiment of the invention, the openings are provided on a first side of the substrate, and the an LED and a Zener diode are coupled to the lead wires through the openings on the first side of the substrate. In another embodiment of the invention, the openings are provided on opposite sides of the substrate, and the LED and Zener diode are coupled to the lead wires through the openings on opposite sides of the substrate. These embodiments are clearly illustrated in Figs. 5-6 and 8-9, which show the enclosed lead wires 430 running to port 450 and openings W exposing the lead wires, where the LED 410 and Zener diode 420 are coupled to lead wires 430 through the openings.

Weindorf et al teach a flexible circuit board including an LED and LED control circuits. In Weindorf et al, it is contemplated that the LED and LED control circuits may be disposed on a single side of the flexible circuit board, or disposed on opposite sides of the flexible circuit board connected by thermal vias. See paragraph 0025 of Weindorf et al. In the second case, signal routing lines connected to the LED and LED control circuits are provided on a bottom side of the flexible circuit board. See paragraph 0032 of Weindorf et al.

However, in either case, Weindorf et al teach that the signals lines are disposed on an exterior surface of the flexible circuit board. There is simply no teaching or suggestion in Weindorf et al of lead wires enclosed by a substrate of the circuit board, as variously recited in claims 1, 7 and 14.

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For at least the reasons described above, it is Applicant's belief that Weindorf et al fail to teach or suggest all the limitations of claims 1, 7 and 14. Applicant therefore respectfully requests that the rejections of claims 1, 17 and 14 be withdrawn and the claim passed to issue. Insofar as claims 2-6, 8-13 and 15-20 depend from claims 1, 7 and 14 either directly or indirectly, and therefore incorporate all of the limitations of claims 1, 7 and 14, it is Applicant's belief that these claims are also in condition for allowance.

Rejections Under 35 U.S.C. 103(a)

Claims 4 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weindorf et al in view of Mizuno. Claims 5-6 and 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weindorf et al in view of Kakuguchi et al.

As noted above, it is Applicant's belief that claims 4-6 and 11-13 are allowable by virtue of their dependency from claims 1 and 7, respectively. For this reason, the Examiner's arguments in connection with these claims are considered moot and will not be addressed here.

Conclusion

The Applicant believes that the application is now in condition for allowance and respectfully requests so.

Respectfully submitted.

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